

REMARKS

INTRODUCTION

Claims 1-17, 19, 21, 23, 25 and 27-29 were previously pending and under consideration.

Claims 18, 20, 22, 24 and 26 were previously cancelled.

Claims 1-17, 19, 21, 23, 25 and 27-29 are rejected.

Claims 1, 9, and 17 have been amended herein.

Claims 30 and 31 have been added.

Claims 1-17, 19, 21, 23, 25 and 27-29 were previously pending and under consideration.

No new matter is being presented, and approval and entry are respectfully requested.

ENTRY OF AMENDMENT UNDER 37 CFR §1.116

Applicant requests entry of this Rule 116 Response because:

(a) it is believed that the amendment of the claims puts this application into condition for allowance;

(b) the amendments were not earlier presented because the Applicant believed in good faith that the cited prior art did not disclose the present invention as previously claimed; and

(c) the amendments do not significantly alter the scope of the claims and place the application at least into a better form for purposes of appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment

should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTIONS UNDER 35 USC § 103

In the Office Action, at pages 2-3, claims 1, 2, 4, 6, 9, 10, 12, 14, 17, 19, 23 and 27 were rejected under 35 U.S.C. § 103 as being unpatentable over Tai in further view of Moriwaki, Wiltshire and Wild. This rejection is traversed and reconsideration is requested.

In the Office Action, at pages 3-5, claims 3, 5, 7, 8, 11, 13, 15, 16, 21, 25, 28 and 29 were rejected under 35 U.S.C. § 103 as being unpatentable over Tai in further view of Moriwaki, Wiltshire, Wild and Hira. This rejection is traversed and reconsideration is requested.

LIGHT CONTROL FACE HELPS LIGHT WITHIN THE GUIDE PLATE TO ESCAPE BY SUBSTANTIALLY SCATTERING THE LIGHT

The amended independent claims recite that the "back face provides a light control face provided with emission promoting properties which help light propagating within the guide plate to escape from said illumination output face by substantially scattering the light". For support, see at least page 11, and in particular the third and fourth complete paragraphs. One of ordinary skill in the art of optics and display technology will appreciate that substantially scattering light relates to a degree of scattering that is at least something more than the insubstantial scattering caused by random defects.

The rejection proposes that the scattering feature is provided by the micropyrramids 46 of Tai, and the other references were not cited for and do not discuss or suggest this feature in combination with the other features of the claim. The microprisms of Tai have a same regular geometric form and arrangement. Therefore, despite their small size, the microprisms reflect light regularly and predictably downward according to ordinary laws of optical reflection.

Furthermore, the micropyramids serve the same purpose as the microprisms 44. The microprisms are long prisms used with an embodiment having only one light pipe 28. In that embodiment, the "microprisms 44 and arrangement [light pipe] 28 are designed to cooperate with one another so as to ensure that all or substantial all of the light 38 coming from the lamp and impinging on the surface of microprisms will be reflected by total internal reflection downward" (col. 4, lines 19-25). The micropyramids 46 are used in an embodiment with two perpendicular light pipes, and they serve the same function as the microprisms by reflecting downward (not substantially scattering) light from both light pipes. This understanding of the effect of the microprisms 44 is mentioned explicitly in Tai when discussing a variation of the microprisms that "totally reflect ... downward to illuminate the object" (col. 10, lines 30-34).

Tai discusses insubstantial unintended scattering within its lighting system that is caused by defects. No physically produced optical system is flawless. Some minor scattering will occur. However, the microprisms and micropyramids of Tai do not "substantially scatter the light" as recited in the independent claims. The Merriam Webster Dictionary indicates that "scatter" can be used to mean "to reflect irregularly and diffusely". As discussed above, the microprisms of Tai do not reflect irregularly. The micropyramids of Tai primarily reflect light regularly downward, and any scatter is insubstantial. Withdrawal of the rejection is respectfully requested.

The design of Tai requires the reflection of light downward. Therefore, Tai cannot be modified to include a random arrangement (e.g. claim 3). Nor can Tai be modified in any way to substantially scatter or disperse light. In fact, Tai mentions that leakage resulting from defects is undesirable and should be minimized (col. 10, lines 1-11). The MPEP, at § 2143.01, states that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious", and a "suggested combination of references" is improper when it "would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate". Tai may not be altered to function in

any way other than to direct light downward from the lighting system without any substantial scattering.

PRIOR ART COMBINATION LACKS A SURFACE LIGHT SOURCE OF THE SIDE LIGHT TYPE USED WITH AN LCD THAT HAS A REFLECTION PLATE AT THE BACK SIDE OF THE LCD PANEL, IN A FRONTLIGHT ARRANGEMENT

Tai discusses a frontlighting system. However, TAI does not apply the frontlighting system to an LCD, and in particular to an LCD that has a reflection plate at the back side of the LCD panel. Such a reflection plate enables surface light source devices - of the frontlighting type - to be effectively adopted as auxiliary illumination for the LCD. As stated in the rejection, an LCD having a reflection plate at the back side of the LCD panel is known. But, none of the cited references (Tai, Moriwaki, Wiltshire, Wild, and Hira) discuss or suggest combining a surface light source device - of the side light type - with an LCD that has a reflection plate at the back side of the LCD panel in a frontlighting arrangement.

Withdrawal of the rejection is further respectfully requested.

NON-MOOT ARGUMENTS MUST BE EXAMINED DESPITE NEW REFERENCE

Regarding the arguments above, even if new grounds of rejection are found, "[t]he examiner must, however, address any arguments presented by the applicant which are still relevant to any references [still] being applied" (MPEP § 707.07(f)). Applicant respectfully requests a response to each of the presented arguments that may remain relevant with respect to the prior art references. For example, if Tai is again cited as teaching

DEPENDENT CLAIMS

The dependent claims are deemed patentable due at least to their dependence from allowable independent claims. These claims are also patentable due to their recitation of independently distinguishing features. For example, claim 3 recites "dot-like fine regions are

arranged with irregularity". New claim 30 recites the back face substantially scattering and substantially reflecting the light. This feature is not taught or suggested by the prior art. Withdrawal of the rejection of the dependent claims is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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